

## Article 110.-TECHNICAL STANDARDS

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**112-110-1. Adoptions by reference.** The following texts by gaming laboratories international (GLI) are hereby adopted by reference:

- (a) “GLI-11: gaming devices in casinos,” version 2.0, dated April 20, 2007,

except the following:

- (1) Each reference to a “75% payout percentage,” which shall be replaced with “an average of not less than 87% of the amount wagered over the life of the machine”;

- (2) section 1.1;

- (3) section 1.2;

- (4) section 1.4; and

- (5) the section titled “revision history”;

- (b) “GLI-12: progressive gaming devices in casinos,” version 2.0, dated April 20, 2007, except the following:

- (1) Section 1.1;

- (2) section 1.2;

(3) section 1.4; and

(4) the section titled “revision history”;

(c) “GLI-13: on-line monitoring and control systems (MCS) and validation systems in casinos,” version 2.0, dated April 20, 2007, except the following:

(1) Section 1.3;

(2) section 1.5;

(3) the “note” in section 3.4.3; and

(4) the section titled “revision history”;

(d) “GLI-15: electronic bingo and keno systems,” version 1.2, dated April 12, 2002, except the following:

(1) Section 1.3;

(2) section 1.5; and

(3) the section titled “revision history”;

(e) “GLI-16: cashless systems in casinos,” version 2.0, dated April 20, 2007, except the following:

(1) Section 1.2;

(2) section 1.4; and

(3) the section titled “revision history”;

(f) “GLI-17: bonusing systems in casinos,” version 1.2, dated February 27, 2002, except the following:

(1) Section 1.2;

(2) section 1.4; and

(3) the section titled “revision history”;

(g) “GLI-18: promotional systems in casinos,” version 2.0, dated April 20, 2007, except the following:

- (1) Section 1.2;
- (2) section 1.4; and
- (3) the section titled “revision history”;

(h) “GLI-20: kiosks,” version 1.4, dated July 1, 2006, except the following:

- (1) Section 1.3; and
- (2) the section titled “revision history”;

(i) “GLI-21: client-server systems,” version 2.1, dated May 18, 2007, except the following:

- (1) Section 1.1;
- (2) section 1.2;
- (3) section 1.4;
- (4) each reference to a “75% payout percentage,” which shall be replaced with

“an average of not less than 87% of the amount wagered over the life of the machine”;

and

- (5) the section titled “revision history”;

(j) “GLI-24: electronic table game systems,” version 1.2, dated September 6, 2006, except the following:

- (1) Section 1.1;
- (2) section 1.3;
- (3) each reference to “75% payout percentage,” which shall be replaced with “an average of not less than 87% of the amount wagered over the life of the machine”; and

(4) the section titled “revision history”;

(k) “GLI-25: dealer controlled electronic table games,” version 1.1, dated

September 8, 2006, except the following:

(1) Section 1.1;

(2) section 1.3; and

(3) the section titled “revision history”; and

(l) “GLI-26: wireless gaming system standards,” version 1.1, dated January 18,

2007, except the following:

(1) Section 1.1;

(2) section 1.2;

(3) section 1.4; and

(4) the section titled “revision history”. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 74-8750 and 74-8772; effective May 1, 2009.)

**112-110-2. Central computer system accounting.** (a) Each central computer system (CCS) provided to the commission shall include an accounting and auditing mechanism.

(b) Each CCS shall be capable of supporting a network of 15,000 EGMs and the location controllers and validation stations needed to support the EGMs.

(c) Each CCS shall meet all of the following requirements:

(1) The CCS computers shall obtain all meter reading data in real time, which shall be no longer than two and one-half minutes after any meter acquisition request.

(2) The CCS shall keep accurate records, maintaining a total of at least 14 digits, including cents, in length for each type of datum required and of all income generated by each electronic gaming machine (EGM).

(3) The CCS shall be capable of monitoring the operation of each game and EGM.

(4) The CCS shall be capable of creating reports from the following information by EGM and by game, if applicable:

- (A) The number of cents wagered;
- (B) the number of cents won;
- (C) the number of cents paid out by a printed ticket;
- (D) the number of cents accepted from a printed ticket;
- (E) the number of cents accepted from each coin, bill, ticket, or other instrument of value;
- (F) the number of cents electronically transferred to the EGM;
- (G) the number of cents electronically transferred from the EGM;
- (H) the number of cents paid out by hand pay, which means the payment of credits that are not totally and automatically paid directly from an EGM, or canceled credit;
- (I) the number of cents paid out by jackpot;
- (J) the number of cumulative credits representing money inserted by a player;
- (K) the number of cents on the credit meter;
- (L) the number of games played;
- (M) the number of games won;

(N) the number of times the logic area was accessed; and

(O) the number of times the cash door was accessed.

(d) The CCS shall be capable of generating the following reports:

(1) Gaming facility performance reports. The gaming facility performance report for the previous period shall be available to be printed on the first day of the next period. Each gaming facility performance report shall be available to be printed for all facilities and for specific facilities. The report shall include data from each EGM in play at the gaming facility. Each report shall contain the following information:

(A) EGM serial number;

(B) the number of cents played;

(C) the number of cents won;

(D) net terminal income, which is the amount played minus the amount won;

(E) Kansas lottery's administrative expenses;

(F) gross profits;

(G) drop amount; and

(H) drop time frame;

(2) a report that calculates the prize payout percentage of each EGM on the basis of cents won divided by cents played;

(3) a report that calculates cents played less cents won, divided by the number of EGMs in play at a facility, during the period;

(4) a report that compares cents played less cents won against total cents in less total cents out by EGMs. This report shall also include the value on the EGM's credit meter;

(5) a daily report showing the total number of EGMs in play and cents played less cents won;

(6) performance reports by brand of EGM, game name, game type, and facility number;

(7) a report by EGM number;

(8) a report of nonreporting EGMs by facility and by EGM supplier, summarizing the last polled date, EGM manufacturer and serial number, reason for error, and poll address;

(9) a report of nonreporting intermediary servers that are communicating with the EGMs but not reporting data by facility and by EGM that summarizes the last polled date, EGM manufacturer and serial number, reason for error, and poll address;

(10) a financial summary report listing facility summaries by date, amount played, amount won, net revenue, number of EGMs, and average net revenue by EGM;

(11) a transaction report listing facility, by EGM supplier and by EGM, that summarizes the electronic game machine manufacturer and serial number, cents in, cents out, net revenue, amount played, amount won, progressive jackpot contribution, win frequency, payback percentage, net jackpot won, number of times each game was played, and number of times each play resulted in a win;

(12) a report containing a record of all security events by EGM or event type over a specific time range; and

(13) a financial report based upon a user-specified time frame, by EGM, that summarizes cents in, cents out, net revenue, cents played, cents won, progressive jackpot

contribution, win frequency, payback percentage, net jackpot won, games played, and games won.

(e) Each report specified in this regulation shall be available on demand and, if applicable, cover a period determined by Kansas lottery or commission auditing staff. On-demand reporting shall be sortable by date, EGM, game, EGM manufacturer, location, and facility. The time period of each report may be daily, weekly, monthly, and yearly, and sufficient data shall be resident on the database to accommodate a facility manager's need to report on a basis specified by the Kansas lottery or commission auditing staff.

(f) Each EGM event and all configuration data, including configurable pay table information, if applicable, shall be retained for each individual EGM in a backed-up CCS system.

(g) All security event data shall be retained for each individual EGM as well as accumulated for each facility.

(h) All game play statistics, EGM event data, and configuration data, including configurable pay table information, if applicable, shall be retained for each EGM in a backed-up CCS system.

(i) All accounting and security event data shall be retained and shall be accessible for at least seven years.

(j) All accounting and security event data shall be retained for each individual EGM and accumulated for each facility.

(k) Each CCS provider shall provide an invoicing software package for facility licensees. That software package shall allow the Kansas lottery to create periodic

statements that interface with an electronic funds transfer account. The CCS shall be able to perform the following functions:

(1) Provide a gross terminal income summary to facilitate daily electronic funds transfer (EFT) sweeps that shall, at a minimum, contain the daily number of EGMs reporting, the daily cash in divided by cash out and daily cash played divided by cash won, daily gross EGM income, daily net balances, adjustments, progressive contributions, and jackpot reset values. The gross terminal income summary reports shall show the information by each EGM as well as by track and by total system, retailer, facility manager, and county;

(2) conduct downloading to tape, disk, or other standard data storage devices of the information necessary to facilitate the EFT daily sweep of each facility's net EGM income;

(3) create a balanced data file of general ledger journal entries to record all lottery activities and integrate into general ledger software on a daily basis and on a multiple day basis, as needed;

(4) provide payout analyses that indicate performance by EGM; and

(5) provide reports in a format as specified, by period to period, by the Kansas lottery. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-3. Central computer system security.** (a) Each CCS's database shall contain EGM data for at least the prior 24 months. Older data shall also be available from

archives for at least seven years. The CCS's vendor shall provide archived data within 24 hours of a request for the data from the Kansas lottery or the commission.

(b) Each CCS shall be capable of the following:

(1) Receiving and retaining a record of events that affect security, including all door openings, stacker access, and signature failure;

(2) receiving and retaining a record of events that affect the EGM state, including power on, power off, and various faults and hardware failures;

(3) receiving and retaining a record of events that affect EGM integrity, including random access memory (RAM) corruption and RAM clear;

(4) receiving and retaining a record of events that affect the status of communication between all components including the EGM, including loss of communication;

(5) reporting of all events specified in this article;

(6) receiving and retaining a record of any other events as specified in writing by the Kansas lottery or the commission; and

(7) automatic reporting of faults that require a manual reactivation of the EGM.

These faults shall include the following:

(A) Logic area cabinet access;

(B) EGM RAM reset;

(C) catastrophic software corruption;

(D) unrecoverable hardware faults; and

(E) a failed signature check.

(c)(1) A record of each of the events specified in subsection (b) shall be stored at the central point of the CCS on a hard drive in one or more files of an approved structure.

(2) The record of each stored event shall be marked by a date and time stamp.

(3) Each event shall be detected and recorded to the database and posted to a line printer or terminal monitor within 10 seconds of the occurrence.

(d) Each CCS shall meet the following security requirements:

(1) The ability to deny access to specific databases upon an access attempt, by employing passwords and other system security features. Levels of security and password assignment for all users shall be solely the function of the Kansas lottery;

(2) the ability to allow multiple security-access levels to control and restrict different classes of access to the system;

(3) password sign-on with two level codes comprising the personal identification code and a special password;

(4) system access accounts that are unique to the authorized personnel;

(5) the storage of passwords in an encrypted, nonreversible form;

(6) the requirement that each password be at least 10 characters in length and include at least one nonalphabetic character;

(7) password changes every 30 days;

(8) prevention of a password from being used if the password has been used as any of the previous 10 passwords;

(9) the requirement that the CCS lock a user's access upon three failed attempted log-ins and send a security alert to a line printer or terminal monitor;

(10) the requirement that connectivity to any gaming system from a remote, non-gaming terminal be approved by the Kansas lottery and the commission, in accordance with K.A.R. 112-107-31. Remote connections shall employ security mechanisms including modems with dial-back, modems with on-off keylocks, message encryption, logging of sessions, and firewall protection;

(11) the ability to provide a list of all registered users on the CCS, including each user's privilege level;

(12) the requirement that approved software and procedures for virus protection and detection, if appropriate, be used;

(13) the requirement that only programs, data files, and operating system files approved by the Kansas lottery and the commission reside on hard drive or in the memory of the CCS computers;

(14) the requirement that nonroutine access alerts and alarm events be logged and archived for future retrieval;

(15) the requirement that software signatures be calculated on all devices at all facilities and the signatures be validated by devices on the CCS network. These devices shall include gaming equipment, location controllers, and cashier stations. These devices shall exclude non-gaming devices, including dumb terminals;

(16) audit trail functions that are designed to track system changes;

(17) time and date stamping of audit trail entries;

(18) capability of controlling data corruption that can be created by multiple log-ons;

(19) the requirement that the gaming software be maintained under an approved software change control system;

(20) the ability to send an alert to any terminal monitor and line printer for any security event that is generated at an EGM or in the system. The system shall allow the system administrator to determine which events should be posted. The events shall be filtered by location;

(21) equipment with a continuous power supply;

(22) the capability of on-line data redundancy if a hard disk peripheral fails during operation; and

(23) provision of a secure way through a graphic user interface for an auditor to make adjustments to the system. (Authorized by and implementing K.S.A. 2007 Supp. 74-8772; effective May 1, 2009.)

**112-110-4. Central computer system; configuration and control.** (a) Each CCS shall be able to begin or end gaming functions by a single command for any of the following:

(1) An EGM;

(2) a group of EGMs; or

(3) all EGMs.

(b) Automatic and manual shutdown capabilities shall be available from the CCS.

(c) The software configuration of each CCS gaming system shall be approved by the Kansas lottery and the commission.

(d) Each CCS shall maintain the following information for each EGM or connected device:

- (1) Location;
- (2) device description, including serial number and manufacturer;
- (3) game name;
- (4) game type;
- (5) configuration, including denomination, software identification number, software version installed on all critical components, game titles available, and progressive jackpot status;
- (6) history of upgrades, movements, and reconfigurations; and
- (7) any other relevant information as deemed necessary by the Kansas lottery or the commission.

(e) Each CCS shall be able to individually and collectively enroll EGMs.

(f) Each CCS shall be able to configure each EGM during the initial enrollment process so that the EGM's system-dependent parameters, including denomination, money units, and pay tables, can be programmed or retrieved from the EGMs and validated by the CCS.

(g) Each CCS shall be able to support continuous gaming operations and shall be able to enable and disable electronic gaming machines based on a daily schedule.

(Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-5. Central computer system; software validation.** (a) Each CCS shall be programmed to initiate a signature validation when an EGM is enrolled.

(b) If an EGM fails the signature validation, the EGM shall not be placed into gaming mode without manual intervention at the CCS level.

(c) One of the following two methods of storing signature check references shall be implemented in the CCS:

(1) Game software image storage in which game software images existing in the EGM are also stored in the CCS; or

(2) precalculated signature results storage in which the table of signature results have a minimum of five entries and those entries are generated from randomly selected seed values for each game and repopulated on a daily basis. The utility program used to generate the signature check result table shall be approved by the Kansas lottery and the commission's electronic security staff.

(d) The game software image and precalculated signature results shall be secured, including by means of password protection and file encryption.

(e) If the image used for validating the EGM software is comprised of more than one program, both of the following requirements shall be met:

(1) The CCS shall have a method to allow each component to be loaded individually.

(2) The CCS shall combine the individual images based upon the scheme supplied by the EGM manufacturer to create the combined image. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-6. Central computer system communication.** (a) Each CCS provider shall furnish specifications, protocols, and the format of messages to and from the central computer system.

(b)(1) The documentation of the communications protocol shall explain all messages, conventions, and data formats and shall be submitted for approval before delivery of the protocol to EGM manufacturers. Approval shall be obtained before distribution of the communications protocol may commence.

(2) The documentation shall detail the following:

(A) The data format, including the following:

(i) Byte ordering;

(ii) bit order where bits are referenced; and

(iii) negative number format;

(B) message framing, including the following:

(i) Header field;

(ii) address field;

(iii) control field;

(iv) information or data;

(v) frame check sequence; and

(vi) trailer field;

(C) minimum and maximum frame or packet length;

(D) packet termination indication;

(E) padding techniques;

(F) special characters used and the function of each character;

(G) general principles of data exchange; and

(H) any other specifications required to support the functionality of the system.

(c) All communications between the host system components shall be encrypted with an encryption tool, which may include data encryption standard approved by the commission's auditing staff. Each proprietary encryption system shall be approved by the Kansas lottery before its use.

(d) If the CCS finds an EGM that is not responding within a set number of retries, the EGM shall be logged as not responding and the system shall continue servicing all other EGMs in the network.

(e) Each CCS shall be wired directly to all EGMs.

(f) Each CCS shall be capable of monitoring the functioning of each EGM.

(g) If a CCS provider proposes a proprietary communications protocol, the provider shall supply a perpetual software license to the Kansas lottery at no additional charge. If a proprietary protocol is utilized, the protocol shall be provided to any vendor designated by the Kansas lottery free of charge within one week of contract signing.

(h) If a CCS uses an industry standard protocol, the provider shall supply and maintain an interoperability document that indicates all of the functionality within the protocol that is used and any additional implementation notes that apply. Each deviation from the protocol shall be approved by the Kansas lottery.

(i) The communication of each CCS shall use cyclic redundancy checks (CRCs).

(j) The communication of each CCS shall withstand error rates based on the protocols in use.

(k) The communications protocol shall provide a method for the recovery of each message received in error or not received at all.

(l) Each CCS shall acknowledge all data messages that the CCS receives.

(m) Any CCS may include a negative acknowledgment (NAK) for messages received in error or messages that are received outside of specified time periods.

(Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-7. Central computer system; protocol simulator.** (a) Each CCS shall include a protocol simulator to enable the development of the communications protocol and to assist in acceptance testing.

(b) Each simulator shall support and test all of the transactions and message types that are to be used by the communications protocol.

(c) Each simulator shall be capable of generating common communication errors to confirm that the EGM software is properly handling the event.

(d) Along with the protocol simulator, each CCS provider shall furnish the following:

(1) An operations manual or other suitable documentation;

(2) a definition of the message structure, types, and formats in machine-readable form;

(3) a standard for all program modules, including naming conventions, definitions of module names, and comments; and

(4) a diagram for the communications protocol.

(e) Each simulator shall run on standard computer equipment, including a personal computer.

(f) The communications protocol shall contain only codes or bytes that are defined in the communications protocol. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-8. Central computer system; general hardware specifications.** (a) Each CCS shall be a state-of-the-art, fault-tolerant, redundant, and high-availability system. Any CCS may be configured in a duplex, triplex, or multiredundant configuration. All computer system components and peripheral equipment, including front-end communications processors, system printers, and tape drives, shall be fault-tolerant and redundant and maintain high availability. No performance degradation or loss of system functionality shall occur with the failure of a single system component. The central computer system's storage management solution shall provide fault tolerance and scalability.

(b) The performance of each CCS shall match or exceed the performance of any similar systems installed by North American lotteries or gaming central control systems in casinos in the last three years.

(c) The functions of each CCS shall not interfere with players, employees who require real-time monitoring of security events, cashiers who handle financial transactions of the electronic gaming machines, or attendants who service the EGM.

(d) Performance of each CCS shall not degrade noticeably during ordinary functionality. The CCS shall provide capacity to accommodate EGM populations, play

volumes, user sessions, and event recording consistent with all specifications.

(e) All hardware and ancillary peripherals comprising the CCS shall be new equipment that has not previously been used or refurbished.

(f) The supplier of each CCS shall be able to produce system checksums or comparable system file checker reports when requested by Kansas lottery or the commission.

(g) Each supplier of CCS hardware and software shall obtain written approval from the Kansas lottery director or the director's designee before making any enhancement or modification to the operating software.

(h) Each CCS supplier shall provide all hardware, operating system software, third-party software, and application software necessary to operate the CCS.

(i) Each CCS shall be able to operate 24 hours a day, seven days a week, with the database up and running. Off-hours backup shall be able to run without shutting down the database. The Kansas lottery shall be able to do a full system backup, which shall include backing up the operating system and any supplier software.

(j) The central processing unit and peripheral devices of each CCS shall employ physical security measures in the form of sealed casings, lockable containment, or any other means of physical security approved by the Kansas lottery and the commission.

(k) Each CCS shall be able to support gaming in at least seven gaming facilities in the state of Kansas.

(l) Each CCS shall have one or more management terminals located at each of the facilities. Management terminals may be accessed only with the permission of the

Kansas lottery. A monitoring terminal shall also be located at the Kansas lottery headquarters.

(m) Each CCS shall have two or more monitoring terminals at each facility, as approved by the commission, with at least one terminal to be utilized by the commission. A monitoring terminal shall be located at the commission headquarters.

(n) The responsibility to audit all lottery gaming facility revenues shall rest with the commission. Each CCS supplier shall provide a separate data feed that contains the original accounting data from the EGM before any adjustments and means to reconcile the values or other means of validating any adjustments are made to any data on the system. This separate data feed shall be approved by the commission. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-9. Central computer system backup.** (a) Each CCS supplier shall provide one or more remote backup systems that will take over for the primary site systems, if necessary. Redundant arrays of inexpensive disks (RAID) shall be used to protect key data at the remote site. Data recorded at the remote site shall always contain the most recent transactions. The facility networks shall be routed to permit transaction processing at the backup site. Other communications to permit Kansas lottery operations shall also connect to the backup site. The backup site system shall be able to be tested monthly to ensure that the remote site is fully functional.

(b) Each remaining system shall assume all system functions in case of a failure in one system, without loss or corruption of any data and transactions received before the time of the failure.

(c) Multiple components in the CCS shall have a time-synchronizing mechanism to ensure consistent time recording and reporting for all events and transactions.

(d) The remote backup systems shall have the same processing capacity and architecture as those of the central site systems.

(e) Primary site system recovery from a one-system failure shall be accomplished in no more than two minutes while still maintaining current transactions, including the ability to fully service the communications network supporting the EGM and management terminals.

(f) Backup site system recovery from a primary site failure shall be accomplished in less than 10 minutes without loss of transactions. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-10. Central computer system manuals.** (a) Each CCS supplier shall provide the following manuals and diagrams for the CCS:

- (1) Operation manuals;
- (2) service manuals;
- (3) CCS architecture diagrams; and
- (4) other circuit diagrams.

(b) The required service manuals shall meet the following requirements:

- (1) Accurately depict the CCS that the manual is intended to cover;
- (2) provide adequate detail and be sufficiently clear in their wording and diagrams to enable a qualified repairperson to perform repair and maintenance in a manner that is conducive to the long-term reliability of the CCS;
- (3) include maintenance schedules outlining the elements of the EGM that require maintenance and the frequency at which that maintenance should be carried out; and
- (4) include maintenance checklists that enable EGM maintenance staff to make a record of the work performed and the results of the inspection.

(c) The required CCS architecture diagrams shall meet the following requirements:

- (1) Accurately depict the CCS that the diagrams are intended to cover;
- (2) provide adequate detail and be sufficiently clear in their wording and depiction to enable qualified technical staff to perform an evaluation of the design of the component; and
- (3) be professionally drafted in order to meet the requirements specified in this subsection. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-11. Central computer system; support of progressive games.** (a) As used within this regulation, the following terms shall have the meanings specified in this subsection:

(1) “Linked progressive games” means a group of EGMs at a gaming facility that offers the same game and involves a manner of wagering providing the same probability of hitting the combination that will award the progressive jackpot that increases by the same increments as the EGM is played.

(2) A “wide-area progressive game” means a game that consists of a group of EGMs located at two or more gaming facilities, linked to a single CCS computer that has a manner of wagering that will provide the same probability of hitting the combination that will award the progressive jackpot that increases, by the same increments, as the EGM is played.

(b) Each CCS shall be able to support a variety of different progressive jackpot games, including single-machine games, linked games at a gaming facility, and wide-area progressive games shared by two or more gaming facilities.

(c) The CCS communication for the wide-area progressive system shall be by means of dedicated on-line communication lines, satellite, or another preapproved communications system. All communication packets between each participating facility manager and the CCS shall be encrypted, and the encryption keys shall be alterable upon demand. The protocol shall ensure delivery of all information packets in a valid and correct form.

(d) The CCS computer’s wide-area progressive gaming subsystem shall have the ability to monitor the opening of the front door of the EGM and the logic area of the EGM, and to report all these events to the CCS within one polling cycle.

(e) Each CCS shall have the ability to produce reports that demonstrate the method used to calculate the progressive jackpot amount, including the documentation of

credits contributed from the beginning of the polling cycle and all credits contributed throughout the polling cycle that includes the jackpot signal. The method shall assume that credits contributed to the system after the jackpot win occurs, in real-time but during the same polling cycle, are contributed to the progressive jackpot amount before the win.

(f) Each CCS shall be able to produce fiscal reports that support and verify the economic activity of the games, indicating the amount of and basis for the current progressive jackpot amount. These reports shall include the following:

(1) An aggregate report to show only the balancing of the progressive link with regard to facilitywide totals;

(2) a detail report in a format that indicates for each EGM, summarized by location, the cash-in, cash-out, credits-played, and credits-won totals, as these terms are commonly understood by the Kansas lottery; and

(3) a jackpot contribution invoice that includes documentation of contributions by the following:

(A) Each of its participating EGMs;

(B) the credits contributed by each EGM to the jackpot for the period for which an invoice is remitted;

(C) the percentage contributed by that gaming facility; and

(D) any other information required by the Kansas lottery or the commission to confirm the validity of the facility manager's aggregate contributions to the jackpot amount.

This report shall be available for any facility manager participating in a wide-area progressive electronic gaming machine system.

(g) Each CCS shall be designed to have continuous operation of all progressive games.

(h) Each CCS shall have a method to transfer the balance of one progressive pool to another.

(i)(1) Each progressive controller linking one or more progressive EGMs shall be housed in a double-keyed compartment or an alternative approved by the Kansas lottery and the commission.

(2) The Kansas lottery or the Kansas lottery's designee shall be given possession of one of the keys, or the Kansas lottery's designee shall authorize each instance of access to the controller in advance. No person may have access to a controller without notice to the Kansas lottery.

(3) A progressive entry authorization log shall be included with each controller, and the log shall be completed by each person gaining entrance to the controller. The log shall be entered on a form provided by the Kansas lottery.

(4) If a progressive jackpot is recorded on any progressive EGM, the progressive controller shall be able to identify the EGM that caused the progressive meter to activate, and the progressive controller shall display the winning progressive amount.

(5) If more than one progressive EGM is linked to the progressive controller, the progressive controller may automatically reset to the minimum amount and continue normal play only if the progressive meter displays the following information:

(A) The identity of the EGM that caused the progressive meter to activate;

(B) the winning progressive amount; and

(C) the minimum amount that is displayed to the other players on the link.

(6) A progressive meter or progressive controller shall keep the following information in nonvolatile memory, which shall be displayed upon demand:

(A) The number of progressive jackpots won on each progressive meter if the progressive display has more than one winning amount;

(B) the cumulative amounts paid on each progressive meter if the progressive display has more than one winning amount;

(C) the maximum amount of the progressive payout for each meter displayed;

(D) the minimum amount or reset amount of the progressive payout for each meter displayed; and

(E) the rate of progression for each meter.

(7) Waivers may be granted by the Kansas lottery to ensure that individual EGMs and multiple EGMs linked to a progressive controller meet the requirements of this regulation. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-12. Central computer system; additional functionality.** (a) Each CCS shall be able to support ticket in-ticket out (TITO) processes.

(b) Any CCS may perform the following:

(1) Downloading operating and game software to EGMs that use electronic storage media on which the operation software for all games resides or at a minimum approving, auditing, and verifying the downloading of software to EGMs;

(2) allowing gaming software to be driven by down-line loading on the communications line. Gaming software may be either solicited by the EGM or unsolicited; and

(3) allowing gaming software to be downloaded in a modular fashion with only the modules requiring a change being downloaded. Downloading shall not preclude continuous operation of the EGM network. The CCS provider shall detail for the Kansas lottery and the commission any particular download features of the software, including downloading in the background, eavesdropping, and compression. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)

**112-110-13. Central computer system; acceptance testing.** (a) Each CCS supplier shall make that provider's system available for independent acceptance and compatibility testing.

(b) If a CCS fails the acceptance testing, the CCS supplier shall make all necessary modifications required for acceptance by the Kansas lottery and the commission within the time frame specified by the Kansas lottery and the commission.

(c) Each CCS supplier shall provide at least one test system, including all hardware and software, to the commission or its independent testing laboratory for the duration of the contract. The test system shall include any third-party software and licenses used by the system. The test system shall use the identical software that exists on the production system, though the test system may utilize similar but not identical hardware.

(d) Each CCS supplier shall provide a complete set of manuals at the beginning of acceptance testing. Updates to the manuals shall be supplied concurrently with any CCS modifications that result in updating the manual.

(e) A test system in addition to the system required in subsection (b) may be required if the Kansas lottery determines that a system shall be located at the Kansas lottery.

(f) The cost of initial acceptance testing by the Kansas lottery, the commission, and the commission's independent testing laboratory shall be paid by the CCS supplier. The cost of any testing resulting from system modifications or enhancements shall be paid by the CCS supplier. These costs shall include travel time and expenses for functionality that must be tested on-site or at an alternate location.

(g) Each CCS supplier shall be responsible for the consulting costs incurred by the commission and the Kansas lottery to develop the test scripts. (Authorized by K.S.A. 2007 Supp. 74-8772; implementing K.S.A. 2007 Supp. 74-8749 and 74-8772; effective May 1, 2009.)